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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/983,040	10/22/2001	Ulrich Augustin	00-1004	8199

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McGuire Woods
Suite 1800
1750 Tysons Boulevard
McLean, VA 22102-4215

EXAMINER

BUI, THACH H

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/983,040

Applicant(s)

AUGUSTIN, ULRICH

Examiner

Thach H Bui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 4-5, 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed January 30, 2004 has been received and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-13 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Deckard (U.S. Patent No. 4,527,737).

Deckard teaches a fuel injector comprising a body (1), a fuel bore (21), a fuel inlet valve (26), a spool (60) slidable between a first and a second position (see Fig. 1) and the apparatus includes an open and closed solenoid positioned on respective sides of the spool (col. 6, lines 8-11). Deckard teaches an intensifier body (2) and a piston slidably positioned within the intensifier body (3). The apparatus comprises a plunger (5) of which is being in contact with the piston and the plunger has a cross bore and a longitudinal bore in fluid communication with the cross bore (see Fig. 1). Deckard discloses a high pressure chamber (72) formed below the plunger and a means for supplying the fuel to a nozzle in fluid communication with the high pressure chamber and means for supplying fuel extending within at least the intensifier body (see Fig. 1). The fuel injector includes a throttle (76) (see Fig. 4) having a cross section smaller than the means for supplying fuel to the nozzle during the pre-stroke phase and a pilot

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pressure control means to produce a higher rate of injection in the upper RPM operating range of an associated engine whereby to permit optimization of the engine performance factor (col. 10, lines 15-28). The throttle provides fluid communication between the high pressure chamber and the means for supplying fuel to the fuel nozzle e.g. a fuel bore extending within the intensifier body (see Fig. 1). The fuel injector comprises a groove (28) positioned within the intensifier body and in fluid communication with the means for supplying fuel extending within at least the intensifier body.

Allowable Subject Matter

3. Claims 4-5, 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed January 30, 2004 have been fully considered but they are not persuasive. Applicant argued, by way of example, Deckard does not show a hydraulically controlled injector, instead Deckard shows an electromagnetic unit fuel injector. The claims recited in the application just simply stated that "A fuel injector comprising", therefore, it is Deckard of which have all the features of the invention (as mentioned above) is suitable for the rejection.

Applicant's arguments have been addressed in the above paragraphs.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thach H Bui whose telephone number is 703-305-0063. The examiner can normally be reached on Monday-Friday, 7:30-4 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on 703-308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.B.
04/07/04


MICHAEL MAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700